**A REVIEW ON THE ETHICAL REPORTING OF MEDICAL INFORMATION DURING THE COVID19 PANDEMIC**

**Short title:** *Spinning in Covid19 medical reporting by mass media.*

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***Abstract***

Medical Journalism can be very modestly articulated, as a way to share the medical research projects, conducted around the world. But, making a ‘mountain out of a mole,’ is the present day mantra of the media houses! This when adapted to the present day Covid19 hysteria and frenzy is definitely the recipe for disaster. The entire world already on the precipice of mass hysteria and helplessness aggravated by the unrelenting increase in Covid19 mortality is eager to accept and adopt any treatment modality. The objective of this article is to assess the ethical standards adopted by the various media houses in reporting or peddling various Covid19 drugs. The authenticity of the claims as to them being ‘miracle drugs’ or the new sensation in the fight against Covid19. And how misinformation or unethical reporting can affect the common man and wreak havoc and create pandemonium in the already fragile and anxious community.

***Introduction***

Medical Journalism can be very modestly articulated, as a way to share the many medical research projects conducted around the world(1). It is diverse and usually reflects its audience. Medical journalism was assimilated into the medical community in the late 18th century and the early 19th century. It started as a way to share the ‘researcher’s experiences.’ It is mainly divided into two categories, which are 1) Medical news for the general public 2) Medical news for doctors and other healthcare professionals(2).

***Medical Journalism and the community***

Efficient, undistorted communication of the results of the medical research is important to the physicians, the scientific community and the public(3). Medical journalism helps make sure the research is conducted in a better way. They propagate their news through various mediums including television, newspaper, internet websites and several social media outlets in order to influence the government, policy makers, healthcare professionals and even the general public(1). It is a very important platform to increase the awareness of research in the medical community. A study published in the New England Journal of Medicine concluded that articles in the journal that were covered by The Times, received a disproportionate number of scientific citations (72.8 percent more) compared to those that were not (control articles)(3). Hence, it was concluded that the reporting of medical research in the mass media, boosts the dissemination of medical information from the scientific literature to the research community.

The mass media has an enormous reach in our communities. Their influence among the general public is widespread. They affect the knowledge and health beliefs of the people and ultimately leads to the promotion of public health. The net is so wide and their reach is so far out that many times, people adopt certain health lifestyles or seek a new treatment due to the latest health news they learn about through the media(4). Although the target readership of medical ;journalism are - healthcare providers, fellow researchers and lay public; it is the former group for whom medical journalism acts as a primary medium of imparting information and knowledge(5). There are numerous research papers being published. The sheer mass of emerging medical information is overwhelming. Although the numbers are high and the research at hand could be cutting edge, it may not reach the lay public and thus does not contribute to public health(6). To facilitate the flow of pertinent medical information to the public from these research papers, we usually rely on Medical Journalism(6)!

***Ethical principles of Medical Journalism***

As any profession that affects the general public, Journalism is no different. Many journalism organizations across the globe have listed out various rules and codes of ethics. These codes generally encompass principles of truthfulness, accuracy, objectivity, impartiality, fairness and public accountability(7). Being truthful or accurate is the cardinal principle of journalism and thus medical journalism. It is mandatory that the journalist should disclose or declare to the editors and the audiences about their political affiliations, financial arrangements or other personal information that might constitute a conflict of interest. Objectivity is not always possible (for example, in the face of brutality or inhumanity), but impartial reporting builds trust and confidence.

For healthcare journalists, it is usually a fine line and it is difficult to abide by the general rules put forth for journalism as a whole. For instance, The Association of Newspaper Editors have listed out 47 different codes on its website, but none of those codes addressed the unique challenges of covering complex health care topics(8). A lot of times, the need to simplify or dissect the scientific facts for readers conflicts with the complex nature of science. Some statements printed or told out of context can misinform readers when the messages are conveying risks related to people’s daily lives.

***Is Journalism a form of Science?***

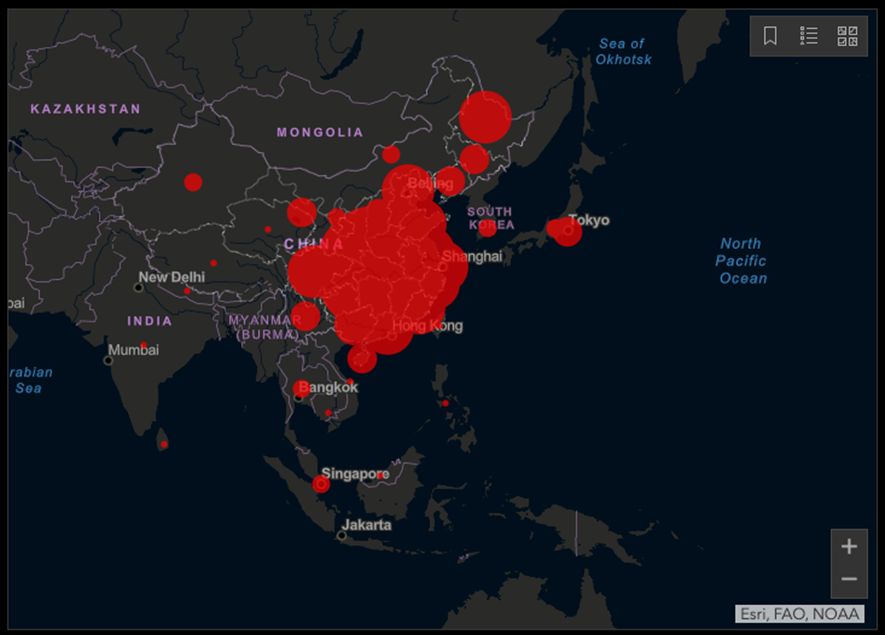
One of the guiding ethical principles in medical reporting as put forward by Marc Dressler(9) is the fundamental doctrine of ‘not raising very high expectation among the public.’ Dressler says that, a journalist should ideally be independent, impartial, honest, cooperative, altruistic, precise, and critical – just like the scientist! A very good example is the media hype created around human cloning in 1993. The news was taken from the American Fertility Society where the physicians Jerry Hall and Robert Stillmann reported of a fertilized egg which was proliferating, then divided into single cells again which on their own proliferated anew. But no media house bothered to report that the egg was infact fertilized by two sperms and as such not viable. The ungrounded media hype could have been very much avoided(9). The fact that degenerated nonviable cluster of germ cells had been cloned and not an embryo, was left out of the media report. Thus, objectivity is fundamental to ethics, without which, there would be no ethical principles and codes; neither in science nor in journalism. As the saying goes, *‘only an objective scientist may be a good scientist. And a good scientist is certainly an objective one. The same counts for journalists*(9).’

***Covid19 and media reporting***

When the Covid19 pandemic took the world by surprise, along with the scientific community the journalist community and the media houses were also scrambling to make sense of the pandemonium occurring around us. Every new medical discovery, drug trial or vaccine test was disseminated, dissected and paraded for the word to see. The world saw a whole new level of journalism with Covid19. Every media house had an opinion. From the progression of the diseases to the rules and regulations imposed by the governments.

As Sabriya Rice (The Knight chair in Health and Medical Journalism) points out, the ideal situation would be, to not put health misinformation out there in the first place. It is very difficult to retract it and convince the public otherwise, once the data is published. She also stated that, off late, many pharmaceutical companies have released data on potential vaccines that have not yet been published in peer-reviewed journals. Hospitals have shared anecdotal evidence about treatments and cures; and individual scientists have advocated the identification of new strains and mutations of the coronavirus(10). Everyone wants to jump on the Covid19 bandwagon. Every media house has an opinion. And every story is sold to the highest bidder. The sheer scale of the tragedy being played out in front of us makes critical journalism difficult, but it is more important now than ever.

Another issue being faced is the use of non-specific tools to display the Coivd19 pandemic around the globe. Lately maps have become a hot favourite among many of the media houses. For example, attached below (figure 1) is a much shared map devised by the Johns Hopkins Center for System Science and Engineering (CSSE). It was promoted by many media houses like NET, ZDNet and the NY Times, among many others(11). According to the map, it looked like the entire country of China was overwhelmed by the virus in early February, but there were only about 35 thousand cases in a population of 1.4 billion people — affecting only 0.002% of people in China(11).

**Figure 1**: Source - Johns Hopkins Center for System Science and Engineering (CSSE).

Scientists believe an *epi curve*(*an epi curve is a visual display of the onset of illness among cases associated with an outbreak-* CDC) is a much better tool to be used to display the Covid19 pandemic around the world(11). But as the old journalism dictum goes, “*If it bleeds, it leads*” — and maps make things look worse. So the specific media houses still resort to using the map as it captures the public attention more.

Even among maps, there is extensive use of ‘cumulative’ maps and charts which makes the data look worse than it actually is(12). Cumulative number of cases can be used to compare the COVID19 outbreaks with other outbreaks in the past like the SARS or MERS. It cannot be used to do real-time tracking of the present pandemic, because it never goes down. Many people would have recovered, some would have died and some would still be receiving treatment. Hence, it cannot be used to gauge the trend of the outbreak. This is exactly the kind of public disservice, journalists should avoid.

More recently, many news agencies are more inclined to mention the ‘confirmed case’ numbers where in confirmed cases are never the same as current cases(12). At any given time, the confirmed cases are not the active cases present. Many people would have recovered, and some would have died. This type of fear mongering will only lead to mass hysteria and pandemonium. Journalists should make the distinction to ensure that the data they showcase to their audience, is not static and can be used to track the current progression without underestimating or overestimating the impact of the pandemic. Then there was the issue of underreporting cases by various countries. In early March, certain Asian countries like Myanmar, Pakistan and Cambodia were underplaying their Covid19 situation to appease China. The difference was stark because, although Pakistan tried not to antagonise China, at the same time, their response to the outbreak in neighbouring Iran was much stronger(13).Their state controlled media, played a major role in projecting the numbers to the world. China has a history of media gagging and falsification of information during public health crises. There is considerable and persistent doubt about the official statistics and their claims of success(14).

Further evaluating the discord between the medical reporting of covid19 drugs and the scientific research published pertaining to the same, let us evaluate two very popular and recently entwined in controversies, Covid19 drugs, the innocent Hydroxychloroquine (HCQ) and the infamous Dexamethasone in table 1 and 2.

**Table 1**. Hydroxychloroquine or its sister drug Chloroquine

|  |  |
| --- | --- |
| **Media quotes/findings/reporting on HCQ** | **Scientific research findings on HCQ** |
| Fox News, after weeks of relentless hyping of HCQ has all but stopped mentioning it on its airwaves. “*So irresponsible for Fox personalities and the President to jump the gun and promote the drug as a possible game-changer before the scientific evidence was in*(15)*”* | Geleris *et al*. says in their observational study hydroxychloroquine use was not associated with a significantly higher or lower risk of intubation or death among Covid19 patients (hazard ratio, 1.04; 95% CI, 0.82 to 1.32)(16). |
| Certain cable news channel in the US promoted using HCQ as a cure for Covid19, 109 times between March 23-25(17). | The results reported by Boulware *et al*. on the efficacy of HCQ as a prophylactic drug in Covid19 are more provocative than definitive, suggesting that the potential prevention benefits of hydroxychloroquine remain to be determined(18). |
| The Wall street Journal’s op-ed put forth column titled “*These drugs are helping our Corona virus patients.*(19)” | A systematic review done in May suggested that the benefits and harms of using hydroxychloroquine or chloroquine to treat COVID-19 is very weak and conflicting(20). |

As alarming as it sounds, a recent study published in NEJM says that, to some extent the media and social forces, rather than medical evidence are the driving force behind clinical decisions regarding Covid-19(21). Although most of the media houses have now retracted their statements regarding Hydroxychloroquine. The damage was already there. Increased demand for the drug, forced patients suffering from lupus and rheumatoid arthritis to go without the drug. Many of them were using it long time as an anti-inflammatory. Overdoses have also been reported in the [US](https://www.cnn.com/2020/03/23/health/arizona-coronavirus-chloroquine-death/index.html) and [Nigeria](https://www.cnn.com/2020/03/23/africa/chloroquine-trump-nigeria-intl/index.html) as frightened individuals attempted to self-medicate(17).

Before the HCQ spectacle can be completely put to rest, we have yet another protagonist in the market. The very humble ‘Dexamethasone’.

**Table 2**. Dexamethasone

|  |  |
| --- | --- |
| **Media quotes/findings/reporting on Dexamethasone** | **Scientific research findings on Dexamethasone** |
| June 16, the world woke up to the news –“*Cheap drug is first shown to improve COVID-19 survival”.* (A title just a while ago reserved for HCQ). Another popular media house claims “*Coronavirus: Dexamethasone proves first life-saving drug.* Yet another headline saying, “*Major breakthrough*”. One very popular news media even went on to say “*Had the drug had been used to treat patients in the UK from the start of the pandemic, up to 5,000 lives could have been saved, researchers say*(22)”  The [**RECOVERY**](https://www.recoverytrial.net/news/low-cost-dexamethasone-reduces-death-by-up-to-one-third-in-hospitalised-patients-with-severe-respiratory-complications-of-covid-19) trial (Dexamethasone trial) has not yet published any of the actual data beyond some general information at their social media website! Their observations/findings have not been validated or reproduced by any other peer groups. This is a classic example of “Science by Press Release”, wherein scientific observations are presented as facts by the group which has made them, with no independent fact-check conducted at that point(23). | A BMJ study supports the use of Dexamethasone, only in patients with hypoxaemia and not those with milder disease. They also say that, the data does not support the use of Dexamethasone in the outpatient setting and there is not clarity if it is the best option for patients in the second phase of the illness. Furthermore, if the treatment may be less beneficial for people with Diabetes(24). |
| Peter Horby *et al.* says that *Dexamethasone reduced 28-day mortality among those receiving invasive mechanical ventilation or oxygen at randomization, but not among patients not receiving respiratory support*(25).  It is a guarded statement as the complete data set and observation of the study is yet to be released. |

Agreed the corticosteroid therapy is yielding results. It is a major breakthrough with regard to Covid19. But it is also imperative that the mechanism of action be understood. Steroids are immune suppressants. The reason Dexamethasone yields results only in severe cases is because, when there is an aberrant or hyperactive immune response by the body to fend off the virus (in critical and long term cases), the lungs experience what is called as the Acute Respiratory Distress Syndrome (ARDS)(26). These steroids are useful in suppressing the immune system and thus reducing the hyperactive response of the immune cells. In doing so, it may provide relief for patients whose lungs are ravaged by these immune reactions. But, such patients may still need a fully functioning immune system to fend off the virus itself(26).The health practitioners are using anything they can get their hands on to turn off the immune response but it is a great risk to actually knock down the immune system when it’s battling an infection(27).Media houses need to go easy on words like ‘game changer’. Dexamethasone may not really be a game changer as it may not really have any significant effect on the long term effects of the virus (it is already understood how this diseases has long term effects on vital organs of the body). Unsubstantiated hypes may result in premature adoption of such interventions into care practices, risking more harm than good. People may start panic using the drug. Health practitioners around the globe may indiscriminately prescribe the drug. The authors are not in contradiction of Dexamethasone. On the positive, it can be gleaned that, if a decades-old steroid can prevent deaths, there are likely more benefits to reap from other anti-inflammatory drugs or combination therapies.

***Effect of hyped media information***

Making a ‘mountain out of a mole’- the present day mantra of certain media houses. When this is adapted to the present day Covid19 hysteria and frenzy, is definitely the recipe for disaster. A match made in hell. The entire world already on the precipice of mass hysteria and helplessness aggravated by the unrelenting increase in Covid19 mortality is eager to accept and adopt any treatment modality. Although, most of the time, the medical world is unfazed by the media circus, the laymen are the scapegoats. A popular ‘ethics of journalism’ article by Wiley says that - *Our 11-year data-rich experience shows that the majority of news stories by major news media that we have reviewed fail to adequately address costs, benefits and harms, the quality of evidence and alternative options. To the extent that such stories influence health care consumers, it is often a bad influence. The afflicted, the voiceless, are not helped*(28)*.*

Although independent, non-profit bodies such as The Association of Health Care Journalists (AHCJ) is present to improve the quality, accuracy and visibility of health care reporting, writing and editing(8), many a times Journalists take the integrity of hyping the news while peddling it according to their specific viewer groups. Whatever gets them more TRP (Target Rating Point)? A 2018 article disseminating a study done in the British Medical journal has quoted that there is a fine line between medical reporting and promotion of a certain drug which in turn becomes blurry. The author further went on to say that the journalists receive perks from the drug industries in the form of travel grants and educational workshops which customarily creates a conflict of interest and can hinder ‘ethical’ medical reporting(29).

There is widespread stigmatisation of the Covid19 patients in many countries. There is even hostility in some cases, especially in cases where people tend to associate the virus with certain population groups or communities such as refugees or migrant workers. This stigmatisation has a detrimental effect on the mental health of the people especially the people who are being stigmatised against. Misinformation and half-baked knowledge is the root cause. That together with sensationalization by the media leads to an abhorrent attitude towards Covid19 positive or recovered individuals(30). Inevitably a certain mob mentality is formed and there is chaos and disruption of social norms and conduct. Mobs have even resorted to physical violence against the diseased individuals(31).

During the early days of the pandemic, the media discussion on the identification of infectious clusters and super spreaders (persons who are responsible for infecting a large number of people), caused widespread panic among the public. Furthermore, the images broadcast on television showing military trucks and vans transporting coffins of COVID-19 victims were reminiscent of the deadly Western African Ebola virus epidemic a few years earlier(30). There is “witch hunt” hysteria among the people causing discrimination and attacks against the vulnerable groups (this is particularly common in the villages and small towns). There are reports of how even the health care or frontline workers are not spared from this vilification. The fear of being stigmatised leads to the contagious persons delaying seeking care or even hiding their diseases status. This leads to them not getting proper medical attention and finally succumbing to clinical complications and death. Not to mention the failure to isolate infectious sources leading to unchecked propagation of the virus within the community. New and effective approaches are needed to counteract the damaging effects of the media’s information avalanche or sensationalization of COVID-19 and to increase empathy towards population groups at risk of stigmatisation. Public Health measures like the ones done in the small Italian town of Trinità d’Agultu e Vignola in Italy, where the Mayor along with a team of local residents, decided to address the misinformation and social stigma of Covid19 through an online health education campaign-“*Trinità health educational model*”(31). The event was promoted to the local community using media television channels and social media. This was a positive example of the role of media in demystifying the disease. We suggest more countries follow suit and adopt this measure to increase awareness and reduce the panic, fear and hysteria surrounding the disease.

Various prediction models were also being endorsed in case of Covid19. Every few weeks, a new model was receiving press coverage. People were hanging onto it. And when they prove futile, it would cause unnecessary discord and aggravation among the public towards the law making bodies. Models can be useful as tools to make informed guesses about the nature of the disease, its spread and the effects of various interventions and actions. But at the same time, their results can be vastly divergent and vary. They are not to be seen as crystal balls contrary to what was being touted by the press(32).

When health care news is reported in an imprecise, imbalanced or incomplete manner, the damage may include(28):

* Being misled into placing false hope in an unproven approach.
* Scheduling unnecessary physician visits because of something seen or heard in the news, only to have it debunked – a waste of time for all involved.
* Spending time and money pursuing ideas that have no relevance in an individual’s life while failing to pursue more evidence-based approaches.
* Trying to self-medicate and in turn cause injury/harm to one’s well-being.
* Hoarding or stockpiling of the medication causing a reduction in the supply of the drug and thus preventing a really sick person who needs it from availing it.

***Conclusion***

Every journalist around the world has a duty to use reporting to attempt at truth. We need people and media houses that will straddle the worlds of academia, research, journalism, and science to help us arrive at the truth. We need solutions and actions and not half baked stories or anecdotes reeking of desperation.

We don’t need situations, where Covid19 is weaponized and used to bring about a divide in the already divided world. We do not want misinformation on Covid19 to amplify racism or religious divides.

The news organizations have the option to broadcast or not, they should contextualize. Instead of providing vague percentage numbers like “2% of the people…” show real human cost of failures in public policy through profiles of individuals and families who are impacted, and do so in a way that is sensitive. In this day and age of social media and social platforms, everyone is an expert. And the ‘expert opinions’ are varied. The World Health Organisation has very aptly described how the ‘infodemic’ (an overabundance of information – some accurate and some not) is a very serious condition.(33).

A study done by the Reuters Institute found that 60% of respondents (in six countries),had the news media help them make sense of the pandemic(34).This shows that the trust in news outlets or agencies is enormous. There is indeed a gap between the ever expanding medical wisdom and the quality of public health. Dispensing the information to the public without compromising on the truth is the need of the hour. This would facilitate the flow of pertinent medical research to the public at large. In today’s collaborative and interdependent world where trust is very critical, responsible reporting should be the way forward.

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